

EMCO Flow Element Series ISB/1EP for RF Flanges, with Flow Conditioning Effect

Principle

EMCO flow element type ISB/1EP is used as primary element in flow measurement of liquid, gas and steam according to the differential pressure principle in most the process industries, including chemical, petro-chemical, pharmaceutical and the power industry.

The ISB/1EP is especially designed for installations with limited space due to the flow conditioning effect created by the 5 hole design.

The ISB/1EP is based on the principle of measuring velocity in the pipe line, therefore the flow measurement is volumetric.

The ISB/1EP flow elements are based on international standards and private information covering flow calculation, manufacturing tolerances, accuracy and installation requirements.

Construction

The standard for primary elements ISO 5167-1 describes different types of flow conditioners (straighteners). These elements are inserted up stream the flow meter to create a better flow profile.

ISB/1EP flow element with 5 holes combines a traditional single hole orifice plate with a flow conditioner.

This means that straight pipe run up stream the flow meter can be reduced from 20 times inner pipe diameter to 5 times inner pipe diameter, which does the pipe work much easier.

calculation standards : ISO 5167, ASME MFC-3M, ASME

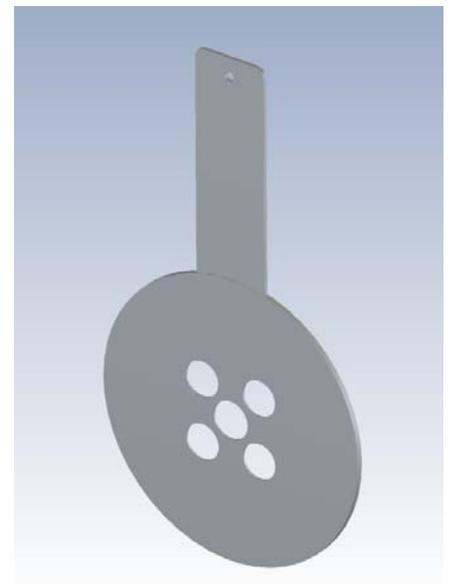
Sizes : 2" - 24" according to ANSI B 16.36,

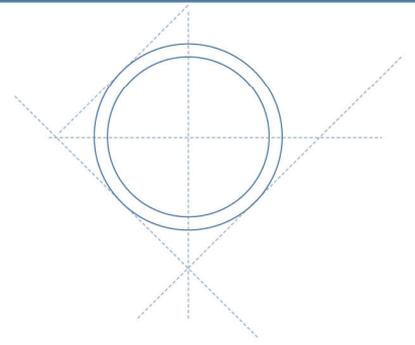
Pressure rating : 300 - 2500 lbs RF

Plate thickness : 3 - 16 mm depending on plate size

β (d/D) equivalent : 0,5 and 0,6

Material : AISI 316, 22Cr Duplex 25Cr Duplex, Monel, 6Mo Hastelloy, titanium and others on request





- Mounting style : Between raised face flanges according To ANSI B16.36 or DIN 19214, other standards on request.
- Orifice plate shapes : Square edge
- Handle : With name plate in AISI 316 with the following inscription : TAG no., serial no., pressure rating, inner pipe diameter., beta equivalent, material.

Technical Data

- Accuracy : +/- 1 %
- Pressure loss : Depending on β , for β equal to 0,6 : ca. 60 % of the differential pressure measured
- Limits for Reynolds No : $Re > 5000$
- Allowable differential pressure : 2,5 bar

